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Supreme Court, U. S.

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IN THE
Supreme Court of the United States

OCTOBER TERM, 1995

LOTUS DEVELOPMENT CORPORATION,
Petitioner,
v.

BORLAND INTERNATIONAL, INC.,
Respondent.

**On Writ of Certiorari to the
United States Court of Appeals
for the First Circuit**

**MOTION FOR LEAVE TO FILE AMICUS CURIAE BRIEF
AND AMICUS CURIAE BRIEF OF DIGITAL EQUIPMENT
CORPORATION, THE GATES RUBBER COMPANY,
INTEL CORPORATION AND XEROX CORPORATION
IN SUPPORT OF PETITIONER**

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MOTION FOR LEAVE TO FILE AMICUS CURIAE BRIEF

Digital Equipment Corporation, The Gates Rubber Company, Intel Corporation and Xerox Corporation ("Amici") respectfully move for leave to file the attached *amicus curiae* brief in this copyright infringement case. The consent of the attorney for petitioner has been obtained. The consent of the attorney for respondent was requested but refused.

Amici are leading developers of software and other computer products, which they create and market for mainframe, mini and personal computers for the business, education, government and entertainment markets. All of Amici develop computer software, to compete in the worldwide software market, to complement the products and services they provide their customers, or to support

other segments of their businesses. Amici constitute a major segment of the U.S. economy and, collectively, have annual revenues exceeding \$44 billion, employ more than 192,000 people worldwide, and invest more than \$3 billion annually in research and development.

Computer software development has become a key part of the United States economy. As with all copyright industries, it relies on appropriate levels of copyright protection for the works it creates. The decision below upsets this reliance, and undermines the industry's copyright incentives.

The First Circuit has denied copyright protection to expression in one of the most creative elements of a computer program—the interface between the computer and the user—because that element performs a useful function. The First Circuit's decision threatens to deny to any expressive program element that also performs a useful function the copyright protection conferred by Congress on authors of computer programs. It does this by interpreting Section 102(b) of the Copyright Act as a bar to protection of the expression of methods of operation.

This case is much more than a dispute between the parties: it is a clash between two fundamentally-opposed views of the protection Congress provided for computer software in the Copyright Act. That is why this case has attracted such extraordinary attention within the computer industry—as the ten *amicus curiae* briefs filed in the First Circuit attest.

One view embraces Congress' decision that computer programs are literary works, to be afforded protection under copyright law in accordance with the same principles that apply to all copyrighted works. In this view, appropriate protection under copyright law fosters innovative competition in the software industry and fulfills the Constitutional dictate "to promote the progress of science."

U.S. Const., art. I, § 8, cl. 8. Amici hold this view, together with the greater part of the software industry.

The opposite view rejects Congress' decision that programs should be protected under copyright. By attempting to erect special judicial barriers to protection, those expressing this view seek to curtail the protection that the copyright statute confers.

As some of the leading innovators in the computer industry, Amici are in a position to bring to the Court's attention the viewpoint of a major portion of the business sector that is most affected by the decision below. Amici are in a better position than the parties to assist the Court in assessing the important implications of this case for industry and for the copyright system. The attached *amicus curiae* brief focuses on these considerations.

Amici respectfully request that this motion be granted and that the brief be considered by the Court in connection with its review of the judgment of the First Circuit.

Respectfully submitted,

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TABLE OF CONTENTS

| | Page |
|---|------|
| TABLE OF AUTHORITIES | ii |
| INTEREST OF AMICI CURIAE | 1 |
| SUMMARY OF ARGUMENT | 3 |
| ARGUMENT | 4 |
| I. CONGRESS MANDATED THAT COPYRIGHT PROTECT THE EXPRESSION IN COMPUTER PROGRAMS, INCLUDING THE EXPRESSION OF METHODS OF OPERATION.... | 6 |
| A. Congress Determined that Computer Programs are Literary Works Protected by Copyright Under the Same Principles that Govern Protection of Other Literary Works..... | 6 |
| B. Section 102(b) of the Copyright Act Bars Protection Only for Ideas, Not for Expression of Ideas | 10 |
| II. IN HOLDING EXPRESSION OF A METHOD OF OPERATION TO BE UNCOPYRIGHTABLE PER SE, THE DECISION BELOW THWARTS CONGRESS' SCHEME FOR PROTECTING COMPUTER PROGRAMS | 13 |
| A. The First Circuit's Per Se Bar to Protecting User Interfaces Is a Misinterpretation of the Copyright Act | 13 |
| B. Denying Protection to Expression in Computer Programs Undermines the Incentives Congress Enacted for Their Authors | 17 |
| CONCLUSION | 19 |

TABLE OF AUTHORITIES

| Cases | Page |
|---|-------|
| <i>Apple Computer, Inc. v. Formula Int'l, Inc.</i> , 562 F. Supp. 775 (C.D. Cal. 1983), <i>aff'd</i> , 725 F.2d 521 (9th Cir. 1984) | 18 |
| <i>Apple Computer, Inc. v. Microsoft Corp.</i> , 35 F.3d 1435 (9th Cir. 1994), <i>cert. denied</i> , — U.S. —, 115 S. Ct. 1176 (1995) | 12 |
| <i>Atari Games Corp. v. Oman</i> , 888 F.2d 878 (D.C. Cir. 1989) | 5, 16 |
| <i>Atari, Inc. v. North American Philips Consumer Elecs. Corp.</i> , 672 F.2d 607 (7th Cir.), <i>cert. denied</i> , 459 U.S. 880 (1982) | 12 |
| <i>Autoskill Inc. v. National Educ. Support Sys., Inc.</i> , 994 F.2d 1476 (10th Cir.), <i>cert. denied</i> , — U.S. —, 114 S. Ct. 307 (1993) | 12 |
| <i>Baker v. Selden</i> , 101 U.S. 99 (1879) | 10 |
| <i>Blue Chip Stamps v. Manor Drug Stores</i> , 421 U.S. 723 (1975) | 13 |
| <i>Cable/Home Communication Corp. v. Network Products, Inc.</i> , 902 F.2d 829 (11th Cir. 1990) | 12 |
| <i>Campbell v. Acuff-Rose Music, Inc.</i> , — U.S. —, 114 S. Ct. 1164 (1994) | 8 |
| <i>CCC Info. Servs., Inc. v. Maclean Hunter Mkt. Reports, Inc.</i> , 44 F.3d 61 (2d Cir. 1994), <i>cert. denied</i> , — U.S. —, 64 U.S.L.W. 3240 (1995) | 12 |
| <i>Computer Assocs. Int'l, Inc. v. Altai, Inc.</i> , 982 F.2d 693 (2d Cir. 1992) | 16 |
| <i>FDIC v. Meyer</i> , 510 U.S. —, 114 S. Ct. 996 (1994) | 13 |
| <i>Feist Publications, Inc. v. Rural Tel. Serv. Co.</i> , 499 U.S. 340 (1991) | 8 |
| <i>Fogerty v. Fantasy, Inc.</i> , — U.S. —, 114 S. Ct. 1023 (1994) | 8 |
| <i>Gates Rubber Co. v. Bando Chem. Indus.</i> , 9 F.3d 823 (10th Cir. 1993) | 16 |
| <i>Gustafson v. Alloyd Co.</i> , — U.S. —, 115 S. Ct. 1061 (1995) | 8 |
| <i>Harper & Row, Publishers v. Nation Enterprises</i> , 471 U.S. 539 (1985) | 19 |

TABLE OF AUTHORITIES—Continued

| | Page |
|--|------------|
| <i>Kelly v. Robinson</i> , 479 U.S. 36 (1986) | 13 |
| <i>Kepner-Tregoe, Inc. v. Leadership Software, Inc.</i> , 12 F.3d 527 (5th Cir.), <i>cert. denied</i> , — U.S. —, 115 S. Ct. 82 (1994) | 12 |
| <i>Lotus Dev. Corp. v. Paperback Software, Int'l</i> , 740 F. Supp. 37 (D. Mass. 1990) | 6 |
| <i>Lotus Dev. Corp. v. Borland Int'l, Inc.</i> , 49 F.3d 807 (1st Cir.), <i>cert. granted</i> , 64 U.S.L.W. 3238 (U.S. Sept. 27, 1995) (No. 94-2003) | passim |
| <i>M. Kramer Mfg. Co., Inc. v. Andrews</i> , 783 F.2d 421 (4th Cir. 1986) | 12 |
| <i>Mastro Plastics Corp. v. NLRB</i> , 350 U.S. 270 (1956) | 13 |
| <i>Mazer v. Stein</i> , 347 U.S. 201 (1954) | 10, 11, 17 |
| <i>Nichols v. Universal Pictures Corp.</i> , 45 F.2d 119 (2d Cir. 1930), <i>cert. denied</i> , 282 U.S. 902 (1931) | 16 |
| <i>Offshore Logistics, Inc. v. Tallentire</i> , 477 U.S. 207 (1986) | 13 |
| <i>Robert R. Jones Associates, Inc. v. Nino Homes</i> , 858 F.2d 274 (6th Cir. 1988) | 12 |
| <i>Sony Corp. v. Universal City Studios, Inc.</i> , 464 U.S. 417 (1984) | 8 |
| <i>Toro Co. v. R & R Products Co.</i> , 787 F.2d 1208 (8th Cir. 1986) | 12 |
| <i>United States v. Heirs of Boisdoré</i> , 49 U.S. (8 How.) 113 (1849) | 13 |
| <i>Whelan Associates, Inc. v. Jaslow Dental Laboratory, Inc.</i> , 797 F.2d 1222 (3d Cir. 1986), <i>cert. denied</i> , 479 U.S. 1031 (1987) | 12 |
| Constitutional Provision, Statutes and Public Laws | |
| United States Constitution, art. I, § 8, cl. 8 | 17 |
| 17 U.S.C. § 101 | passim |
| 17 U.S.C. § 102(a) | 7, 9, 12 |
| 17 U.S.C. § 102(b) | passim |
| 17 U.S.C. § 117 | 7 |
| Pub. L. No. 98-573, 88 Stat. 1873 (1974) | 8 |
| Pub. L. No. 96-517, 94 Stat. 3015 (1980) | 7, 9 |

TABLE OF AUTHORITIES—Continued

| Legislative Materials | Page |
|---|-------|
| <i>Copyright Law Revision: Hearings on H.R. 4347, H.R. 5680, H.R. 6831 and H.R. 6835 before Subcomm. No. 3 of the House Comm. on the Judiciary, 89th Cong., 1st Sess. (1965)</i> | 8 |
| <i>Copyright Law Revision: Hearings Pursuant to S. Res. 37 on S. 597 before the Subcomm. on Patents, Trademarks, and Copyrights of the Senate Comm. on the Judiciary, 90th Cong., 1st Sess. (1967)</i> | 8 |
| <i>H.R. Rep. No. 1476, 94th Cong., 2d Sess., reprinted in 1976 U.S.C.C.A.N. 5659 (1976)</i> | 9, 12 |
| <i>House Comm. on the Judiciary, Copyright Law Revision (Comm. Print 1965) (1964 Revision Bill with Discussions and Comments)</i> | 8 |
| Treaties | |
| <i>Agreement on Trade-Related Aspects of Intellectual Property Rights, Including Trade in Counterfeit Goods, art. 10(1), 33 I.L.M. 81, 87 (Annex 1C to the World Trade Organization Agreement) (1994)</i> | 10 |
| <i>North American Free Trade Agreement, H.R. Doc. No. 159, 103d Cong., 1st Sess., ch. 17, art. 1705(1) (a) (1993), 32 I.L.M. 605, 671 (1993)</i> | 10 |
| Other Authorities | |
| <i>Jane C. Ginsburg, Four Reasons and a Paradox: The Manifest Superiority of Copyright over Sui Generis Protection of Computer Software, 94 Colum. L. Rev. 2559 (1994)</i> | 14 |
| <i>Arthur R. Miller, Copyright Protection for Computer Programs, Databases, and Computer Generated Works: Is Anything New Since CONTU?, 106 Harv. L. Rev. 977 (1993)</i> | 11 |
| <i>Final Report of the National Commission on New Technological Uses of Copyrighted Works (1978)</i> | 8, 9 |
| <i>Information Infrastructure Task Force, Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights 138 (1995)</i> | 10 |

TABLE OF AUTHORITIES—Continued

| | Page |
|--|-------|
| <i>Melville B. Nimmer and David Nimmer, Nimmer on Copyright (1994)</i> | 5, 14 |
| <i>U.S. Dept. of Commerce, U.S. Global Trade Outlook 1995-2000: Toward the 21st Century (1995)</i> | 2 |
| <i>U.S. Dept. of Commerce, U.S. Industrial Outlook '94 (1994)</i> | 2 |
| <i>Webster's Ninth New Collegiate Dictionary (1987)</i> .. | 14 |

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AMICUS CURIAE BRIEF OF
DIGITAL EQUIPMENT CORPORATION, THE GATES
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XEROX CORPORATION IN SUPPORT OF PETITIONER

INTEREST OF AMICI CURIAE

Digital Equipment Corporation, The Gates Rubber Company, Intel Corporation and Xerox Corporation ("Amici") file this amicus curiae brief in support of petitioner Lotus Development Corporation ("Lotus").

Amici include leading developers of software and other computer products, which they create and market for mainframe, mini and personal computers for the business, education, government and entertainment markets. All of Amici develop computer software to compete in the worldwide software market, to complement the products

and services they provide their customers, or to support other segments of their businesses. Amici constitute a major segment of the U.S. economy and collectively have annual revenues exceeding \$30 billion, employ more than 130,000 people worldwide, and invest more than \$2 billion annually in research and development.

Amici have no interest in either of the parties to this dispute or in the outcome of this case, other than to the extent that it affects the computer software industry and the public generally. Amici have a strong interest in the issues before the Court, since all of Amici develop computer software.

This case presents a critical issue concerning the extent to which copyright protects expression in computer programs. The computer software industry has long relied on copyright law and the incentives it provides. Under the regime established by Congress that recognizes computer programs as literary works and accords them full protection under copyright law, software development has grown into one of the major American industries. At the same time, the United States has become the dominant force in the world software market, supplying approximately 75% of the nearly \$70 billion worldwide packaged software market in 1993 and maintaining a positive balance of trade. U.S. Dept. of Commerce, *U.S. Global Trade Outlook 1995-2000: Toward the 21st Century* 134-35 (1995) ("Trade Outlook").

From 1991 to 1994 the market for packaged software in the United States increased by nearly 41%, to \$35.6 billion, *id.*, making it one of the fastest-growing sectors in our national economy. U.S. Dept. of Commerce, *U.S. Industrial Outlook '94*, at 27-1 (1994). Employment in the software industry has risen every year since 1988 (the first year for which such data are available), creating nearly 73,000 jobs over that period. *Trade Outlook*, at 134.

SUMMARY OF ARGUMENT

This case presents the question whether Section 102(b) of the Copyright Act bars protection for expression in the user interface of a computer program. The key to resolving this question lies in the recognition and implementation of two congressional mandates found in the Copyright Act: Congress' mandate that computer programs are literary works protectible by copyright under the same principles that pertain to other literary works; and Congress' mandate that although expression in a work is protectible, the ideas, processes, methods of operation and the like that underlie that expression are not protectible.

The text and legislative history of the Copyright Act of 1976 and 1980 computer software amendments, make clear that computer programs are literary works protectible by copyright. Apart from very narrow exceptions, Congress did not establish different rules or principles to govern protection of computer programs. Rather, Congress chose to protect programs according to the same principles that apply to other literary works.

The text and legislative history also establish clearly that Section 102(b) of the Copyright Act does no more than restate the idea/expression dichotomy that has been a part of U.S. copyright law for more than a century. According to that most basic principle, expression in works is copyrightable; ideas that underlie that expression are not.

The court below has cast doubt on the protectibility of expression in computer programs. It accomplished this by defining Section 102(b)'s phrase "method of operation" in a way that overlaps substantially with Section 101's definition of "computer program," and then holding that anything falling within that definition is uncopyrightable regardless of its expressive content. This result undermines Congress' intention to provide computer pro-

gram authors with the same incentives accorded other authors under copyright.

ARGUMENT

The central issue in this case is whether Section 102(b) of the Copyright Act of 1976, 17 U.S.C. § 102(b), renders expression of elements of computer programs uncopyrightable because those elements may be used to operate other elements of the program. The specific program element before the Court is the Lotus 1-2-3 menu command hierarchy—the selection of 469 commands and their hierarchical arrangement into more than 50 menus and submenus which collectively comprise the heart of the user interface of Lotus' 1-2-3 spreadsheet program. *Lotus Dev. Corp. v. Borland Int'l, Inc.*, 49 F.3d 807, 809 (1st Cir.), cert. granted, 64 U.S.L.W. 3238 (U.S. Sept. 27, 1995) (No. 94-2003). But this case has profound implications for all other program elements, for computer programs as a whole, and for other works as well.

A user interface is the element of a computer program that permits the program author to communicate with the user, and permits the user to communicate with the computer. This communicative aspect of a user interface makes it one of the most expressive aspects of a computer program. In the decision below, the First Circuit accepted the district court's finding that the 1-2-3 menu command hierarchy was expressive, and that other ways of expressing the ideas underlying the user interface were available. 49 F.3d at 816. Nonetheless, the court below found that the Lotus 1-2-3 menu command hierarchy—including its expression—was a "method of operation." For that reason, it held that Section 102(b) of the Copyright Act deprived it of protection.¹ 49 F.3d at 815.

¹ 17 U.S.C. § 102(b) provides:

In no case does copyright protection for an original work of authorship extend to any idea, procedure, process, system, method of operation, concept, principle, or discovery, regard-

In the First Circuit's view, "'method of operation,' as that term is used in § 102(b), refers to the means by which a person operates something, whether it be a car, a food processor, or a computer." *Id.* According to the court, anything that falls within that definition is wholly deprived of copyright protection, even to the extent that it contains original expression.² *Id.*, at 815-16.

Since, in the court's view, a user interface is a "means by which a person operates . . . a computer," the court's reasoning appears to preclude protection for any user interface. The First Circuit's construction of Section 102(b) would deny protection to expression in most other program elements as well, and to computer programs as a whole. A computer program, defined in the Copyright Act as "a set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result," is a means by which a person operates a computer. 17 U.S.C. § 101 (emphasis supplied). Virtually all elements of a program are means of operating some aspect of a computer. The First Circuit's construction of Section 102(b) might well preclude protection for all such elements—even for the code, or text,

less of the form in which it is described, explained, illustrated, or embodied in such work.

² We refer, of course, to expression that has not "merged" with the underlying idea. Expression is deemed to have merged with the underlying idea when there is only one way available to express the idea. See generally 3 Melville B. Nimmer and David Nimmer, *Nimmer on Copyright* § 13.03[B][3] (1994), (hereinafter, "Nimmer"). The court below found that there were alternative ways of expressing the ideas in the Lotus menu command hierarchy (thus ruling out merger), but found that to be "immaterial" to its analysis. 49 F.3d at 816.

By referring to "original expression" we exclude "*scènes à faire*"—stock treatments of a given subject—that, if protected at all, are protected only against wholesale appropriation. See *Atari Games Corp. v. Oman*, 888 F.2d 878, 886 (D.C. Cir. 1989) (R.B. Ginsburg, J.).

of the program.³ In his concurring opinion, Judge Boudin, in fact, acknowledged that such a literal reading of Section 102(b) "might easily seem to exclude most computer programs from protection." 49 F.3d at 820 (Boudin, J., concurring).

In determining whether a particular element of a computer program is protectible under copyright, a court is guided by two congressional mandates: (a) Congress' mandate that computer programs be protected under copyright according to the same principles as other literary works, and (b) Congress' mandate that no "idea, procedure, process, system, method of operation, concept, principle, or discovery" may be protected by copyright. These are "the markers that Congress has placed to guide the courts." *Lotus Dev. Corp v. Paperback Software, Int'l*, 740 F. Supp. 37, 53 (D. Mass. 1990). Having lost sight of these "markers," the court of appeals regarded itself as "navigating in uncharted waters," 49 F.3d at 813, and thus free to steer any course it might choose.

I. CONGRESS MANDATED THAT COPYRIGHT PROTECT THE EXPRESSION IN COMPUTER PROGRAMS, INCLUDING THE EXPRESSION OF METHODS OF OPERATION.

A. Congress Determined that Computer Programs are Literary Works Protected by Copyright Under the Same Principles that Govern Protection of Other Literary Works.

Computer programs were protected under the Copyright Act of 1976 when it was enacted, even though they were not enumerated specifically among the categories of protectible works of authorship. Section 102(a) states

³ The court's effort to distinguish "computer code" from the Lotus menu command hierarchy, 49 F.3d at 816, rests on flawed reasoning. See *infra*, pp. 14-15.

that the Copyright Act protects "original works of authorship fixed in any tangible medium of expression, now known or later developed, from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device." Section 102(b) then sets out a nonexclusive list of categories of works, which includes "literary works." 17 U.S.C. § 102 (a)(1). Literary works are defined as "works . . . expressed in words, numbers, or other verbal or numerical symbols or indicia" 17 U.S.C. § 101.

Computer programs, whether in a form that can be read by programmers or in a form that can be executed by a computer, are "works . . . expressed in words, numbers, or other . . . symbols or indicia," and thus fall squarely within the statutory definition of literary works.

Congress later confirmed that computer programs are protected under the Copyright Act by enacting a statutory definition of "computer program" in Section 101. Pub. L. No. 96-517 §10(a), 94 Stat. 3015, 3028 (1980). It declined to create a new category of works for computer programs, leaving them in the literary works category. Congress also declined to enact special rules applicable only to computer programs, apart from the narrow exceptions permitting an owner of a copy to create a copy or adaptation "as an essential step in the utilization of the computer program in conjunction with a machine" and to make a backup copy. 17 U.S.C. § 117. It must be presumed that in all other respects Congress intended the copyright law to apply to computer programs in accordance with the same principles applicable to other literary works.

The legislative history of the Copyright Act confirms this reading of the statutory language. The Copyright Act of 1976 culminated more than three decades of consideration and debate by Congress. Congress considered many different viewpoints presented in testimony, written submissions, and studies. Protection of computer programs

figured prominently in these proceedings,⁴ particularly after the Copyright Office began issuing registrations for claims of copyright in computer programs in 1964. *Final Report of the National Commission on New Technological Uses of Copyright Works* 15 (1978) ("CONTU Final Report").

Still, Congress sought further input and constituted a panel of experts, the National Commission on New Technological Uses of Copyrighted Works ("CONTU"), to study and make recommendations concerning, *inter alia*, the proper regime for protecting computer programs. Pub. L. No. 93-573, 88 Stat. 1873 (1974). Although the Copyright Act was enacted before CONTU's study was complete, the committee report prepared when Congress was deliberating on the Copyright Act⁵ states plainly that

⁴ See, e.g., *Copyright Law Revision: Hearings on H.R. 4347, H.R. 5680, H.R. 6831 and H.R. 6835 before Subcomm. No. 3 of the House Comm. on the Judiciary, 89th Cong., 1st Sess. 1144-50* (statement and testimony of John F. Banzhaf III), 1898-99 (letter from Graham W. McGowan to Hon. Edwin E. Willis, House Judiciary Committee), 1428, 1443, 1446-48 (testimony of Bella L. Linden) (1965); 5 House Comm. on the Judiciary, *Copyright Law Revision* 62-63 (testimony of Morton David Goldberg), 271 (statement of H.R. Mayers) (Comm. Print 1965) (1964 Revision Bill with Discussions and Comments); *Copyright Law Revision: Hearings Pursuant to S. Res. 37 on S. 597 before the Subcomm. on Patents, Trademarks, and Copyrights of the Senate Comm. on the Judiciary, 90th Cong., 1st Sess. 192-201* (1967) (testimony and statement of Prof. Arthur R. Miller).

⁵ See *Gustafson v. Alloyd Co.*, — U.S. —, 115 S. Ct. 1061, 1072 (1995) ("If legislative history is to be consulted, it is preferable to consult the documents prepared by Congress when deliberating."). The report of the House Judiciary Committee that accompanied the copyright revision bill has been cited frequently by courts as evidence of Congress' intent in enacting the Copyright Act. See, e.g., *Campbell v. Acuff-Rose Music, Inc.*, — U.S. —, 114 S. Ct. 1164, 1170 (1994); *Fogerty v. Fantasy, Inc.*, — U.S. —, 114 S. Ct. 1023, 1028 (1994); *Feist Publications, Inc., v. Rural Tel. Serv. Co.*, 499 U.S. 340, 355-57, 359 (1991); *Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417, 448-49 nn.29, 31-32 (1984).

computer programs are among the literary works protected by Section 102(a)(1) of the statute:

The term "literary works" does not connote any criterion of literary merit or qualitative value: it includes catalogs, directories, and similar factual, reference, or instructional works and compilations of data. It also includes computer data bases, and computer programs to the extent that they incorporate authorship in the programmer's expression of original ideas, as distinguished from the ideas themselves.

H.R. Rep. No. 1476, 94th Cong., 2d Sess. 54, reprinted in 1976 U.S.C.C.A.N. 5659, 5667 (1976) ("House Report").

CONTU took testimony and written submissions from numerous experts in copyright and information technology. *CONTU Final Report*, at 113-14, 121-29. After consideration and debate, it concluded that copyright should protect computer programs under the same principles that apply to other copyrighted works. *Id.* at 13. In 1980, Congress adopted CONTU's recommendations with immaterial changes—including CONTU's proposed definition of "computer program."⁶ Pub. L. No. 96-517 § 10 (a), 94 Stat. 3015, 3028 (1980), codified at 17 U.S.C. § 101 (definition of "computer program").

Congress' confirmation that computer programs are literary works protected under copyright law has been accepted as a model for protection of software throughout the world. In fact, it has been incorporated into international obligations accepted by a clear majority of nations, including all of the United States' major trading partners.

⁶ As this brief chronology demonstrates, copyright protection for computer programs is neither an historical accident nor an impulsive act that received little attention by the legislators. Copyright protection for computer programs is the result of decades of open debate and careful consideration.

For example, the North American Free Trade Agreement (NAFTA) provides that computer programs are literary works under copyright law and requires all parties (the United States, Canada and Mexico) to protect them as such. NAFTA, H.R. Doc. No. 159, 103d Cong., 1st Sess., ch. 17, art. 1705(1)(a) (1993), 32 I.L.M. 605, 671 (1993). The World Trade Organization Agreement (successor to the General Agreement on Tariffs and Trade) similarly requires protection of computer programs as literary works under copyright law. Agreement on Trade-Related Aspects of Intellectual Property Rights, Including Trade in Counterfeit Goods (TRIPS), art. 10 (1), 33 I.L.M. 81, 87 (Annex 1C to the World Trade Organization Agreement) (1994). See Information Infrastructure Task Force, *Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights* 138 (1995).

B. Section 102(b) of the Copyright Act Bars Protection Only for Ideas, Not for Expression of Ideas.

Section 102(b) of the Copyright Act is a statutory restatement of the "idea/expression" dichotomy. This principle, first enunciated by the Court in *Baker v. Selden*, 101 U.S. 99 (1879), formed part of the legal context in which the Copyright Act was considered and enacted. See, e.g., *Mazer v. Stein*, 347 U.S. 201, 217 (1954) (re-stating idea/expression dichotomy). The reference to "idea" in Section 102(b) is a conscious invocation of the principle.⁷

Expression that is separable from (*i.e.*, is not merged with) an idea, method of operation, or any of the other categories of unprotectible matter, is copyrightable.⁸ Noth-

⁷ The phrase "method of operation," as used in copyright law, also appears to originate in *Baker*. 101 U.S. at 103.

⁸ For simplicity, hereafter we refer to all of the categories of unprotectible matter listed in Section 102(b) collectively as "ideas," unless the context dictates otherwise.

ing in the text of Section 102(b) states or even suggests otherwise. To the contrary, the final phrase of Section 102(b) ("regardless of the form in which it is described, explained, illustrated, or embodied in such work") contemplates that ideas, procedures, processes and the like are separable from the form in which they are "described, explained, illustrated, or embodied"

A dichotomy thus exists between unprotectible ideas and their protectible "form" or expression. Apart from those instances where the idea and expression in a particular work may have merged (another principle that owes its origin to *Baker*), the idea/expression dichotomy does not deny protection to expression in a work.⁹ This was settled law at the time Congress enacted the Copyright Act, see, e.g., *Mazer*, 347 U.S. at 217 ("protection is given only to the expression of the idea—not the idea itself"); the text of Section 102(b) reveals no Congressional intent to change the law in this regard.

The legislative history of the Copyright Act confirms this reading of the statutory language:

Section 102(b) is intended, among other things, to make clear that the expression adopted by the programmer is the copyrightable element in a computer program, and that the actual processes or methods embodied in the program are not within the scope of the copyright law.

Section 102(b) in no way enlarges or contracts the scope of copyright protection under the present law. Its purpose is to restate, in the context of the new single Federal system of copyright, that the basic dichotomy between expression and idea remains unchanged.

⁹ See Arthur R. Miller, *Copyright Protection for Computer Programs, Databases, and Computer Generated Works: Is Anything New Since CONTU?*, 106 Harv. L. Rev. 977, 986 (1993) ("Since *Baker*, courts have reaffirmed repeatedly that functionality poses no per se bar to copyrightability.") (The author was a member of CONTU who served on its software subcommittee.).

House Report, at 57, 1976 U.S.C.C.A.N. at 5670. See also *id.* at 54, 1976 U.S.C.C.A.N. at 5667 (computer programs are protectible under Section 102(a)(1) "to the extent that they incorporate authorship in the programmer's expression . . . as distinguished from the ideas themselves.").

Implementing Congress' express statement in the legislative history of the Copyright Act, courts of appeals have universally found Section 102(b) to be a restatement of the idea/expression dichotomy. See, e.g., *CCC Info. Servs., Inc. v. Maclean Hunter Mkt. Reports, Inc.*, 44 F.3d 61, 69 & n.12 (2d Cir. 1994), *cert. denied*, — U.S. —, 64 U.S.L.W. 3240 (1995); *Whellan Assocs., Inc. v. Jaslow Dental Lab., Inc.*, 797 F.2d 1222, 1234 (3d Cir. 1986), *cert. denied*, 479 U.S. 1031 (1987); *M. Kramer Mfg. Co., Inc. v. Andrews*, 783 F.2d 421, 434 (4th Cir. 1986); *Kepner-Tregoe, Inc. v. Leadership Software, Inc.*, 12 F.3d 527, 533 & n.8 (5th Cir.), *cert. denied*, — U.S. —, 115 S. Ct. 82 (1994); *Robert R. Jones Assocs., Inc. v. Nino Homes*, 858 F.2d 274, 277 (6th Cir. 1988); *Atari, Inc. v. North American Philips Consumer Elecs. Corp.*, 672 F.2d 607, 615 (7th Cir.), *cert. denied*, 459 U.S. 880 (1982); *Toro Co. v. R & R Prods. Co.*, 787 F.2d 1208, 1211-12 (8th Cir. 1986); *Apple Computer, Inc. v. Microsoft Corp.*, 35 F.3d 1435, 1443 & n.11 (9th Cir. 1994), *cert. denied*, — U.S. —, 115 S. Ct. 1176 (1995); *Autoskill Inc. v. National Educ. Support Sys., Inc.*, 994 F.2d 1476, 1495 (10th Cir.), *cert. denied*, — U.S. —, 114 S. Ct. 307 (1993); *Cable/Home Communication Corp. v. Network Prods., Inc.*, 902 F.2d 829, 842-43 & n.26 (11th Cir. 1990).

II. IN HOLDING EXPRESSION OF A METHOD OF OPERATION TO BE UNCOPYRIGHTABLE PER SE, THE DECISION BELOW THWARTS CONGRESS' SCHEME FOR PROTECTING COMPUTER PROGRAMS.

A. The First Circuit's Per Se Bar to Protecting User Interfaces Is a Misinterpretation of the Copyright Act.

The First Circuit's holding that an element of a computer program that performs a useful function is a "method of operation," and all expression in that element is therefore ineligible for copyright protection under Section 102(b), rests on a series of misinterpretations of the Copyright Act.

The Court has long emphasized that a statutory provision should be interpreted in light of "the provisions of the whole law, and . . . its object and policy" *Kelly v. Robinson*, 479 U.S. 36, 43 (1986) (quoting *Offshore Logistics, Inc. v. Tallentire*, 477 U.S. 207, 221 (1986), in turn quoting *Mastro Plastics Corp. v. NLRB*, 350 U.S. 270, 285 (1956), in turn quoting *United States v. Heirs of Boisdoré*, 49 U.S. (8 How.) 113, 122 (1849)) (citations and internal quotes omitted). The First Circuit failed utterly to do this. Without so much as a sideways glance at its context in the statute, the First Circuit regarded Section 102(b) in isolation and proffered an interpretation of the provision that undoes what Congress did elsewhere in the statute.

While it is true that "the 'starting point in every case involving construction of a statute is the language itself,'" *Kelly*, 479 U.S. at 43 (quoting *Blue Chip Stamps v. Manor Drug Stores*, 421 U.S. 723, 756 (1975) (Powell, J., concurring)), "the text is only a starting point." *Kelly*, 479 U.S. at 43. The canon that a court "construe[s] a statutory term in accordance with its ordinary or natural meaning," *FDIC v. Meyer*, 510 U.S. —, 114 S. Ct. 996, 1001 (1994), should not be applied to a single

phrase in isolation in a way that defeats other provisions of the statute.

The phrase "method of operation" is not defined in the Copyright Act. The court below, presumably adopting what it viewed as a common use of the words "method of operation," 49 F.3d at 821 (Boudin, J., concurring), constructed a definition for that phrase that is strikingly similar to that adopted by Congress for a "computer program" in Section 101. The court then applied Section 102(b) as a *per se* bar to protection for any element of a work (and presumably for any work in its entirety), regardless of its expressive content, that falls within that definition. On its face, that construction must be wrong.

First, it can be presumed that Congress did not intend to adopt for *uncopyrightable* matter a definition that has essentially the same meaning as the statutory definition of a *copyrightable* work of authorship—namely, a computer program.¹⁰ The court of appeals has constructed a false conflict between Sections 101 and 102(b) of the Copyright Act and arbitrarily resolved it in favor of Section 102(b).

The fallacy of the First Circuit's construction is illustrated by substituting "idea" for "method of operation." "Idea" can be defined as "a formulated thought or opinion." *Webster's Ninth New Collegiate Dictionary* 597 (1987). Therefore (following the First Circuit's logic) any element of a work that fits that definition is un-

¹⁰ See 1 Nimmer, at § 2.03[D]; Jane C. Ginsburg, *Four Reasons and a Paradox: The Manifest Superiority of Copyright over Sui Generis Protection of Computer Software*, 94 Colum. L. Rev. 2559, 2570 (1994) ("[S]ince we know that Congress did determine in 1980 to protect computer programs, the terms 'process,' 'system,' or 'method of operation' must not be understood literally." (footnote omitted)). See also *id.* at 2570 n.64 ("some nonsoftware works of authorship are protected even though they constitute 'processes' or 'methods of operation' in the colloquial sense").

protectible, no matter how expressed. That interpretation would, of course, disqualify most writings from copyright protection.

Second, even assuming that the First Circuit's definition of "method of operation" were defensible, that would not dispose of the question whether the manner in which a "method of operation" is expressed is copyrightable. As a restatement of the idea/expression dichotomy, Section 102(b) cannot bar protection for *expression* in a work where, as here, there is no merger of idea and expression. 49 F.3d at 816.

Although the First Circuit attempted to limit its holding by distinguishing "computer code"—the text of a computer program—from the Lotus menu command hierarchy, it did so based on flawed and unpersuasive reasoning. *Id.* at 816. The court stated that the menu command hierarchy of Lotus 1-2-3 was a method of operation because "[w]ithout the menu command hierarchy, users would not be able to access and control, or indeed make use of *Lotus 1-2-3's* functional capabilities." *Id.* at 815 (emphasis supplied). On the other hand, according to the court, the code of Lotus 1-2-3 was not a method of operation because, in order for a competing program "to offer *the same capabilities as Lotus 1-2-3* [a competitor does not] have to copy Lotus' underlying code" *Id.* at 816 (emphasis supplied).

The court asked a different question regarding the menu command hierarchy (whether it was needed to operate *a particular program*—Lotus 1-2-3) than it asked regarding the program's code (whether it was needed to offer *the same capabilities as Lotus 1-2-3*). Had it asked the same question regarding the user interface that it asked regarding the code, the court of appeals would have recognized that the menu command hierarchy is eligible for copyright protection, since a program offering *the same*

capabilities as Lotus 1-2-3 could have a different menu command hierarchy, as the district court found.¹¹

By the same token, had it asked the same question regarding the program's code that it asked as to the user interface, it would have recognized the flaw in its reasoning. The code of Lotus 1-2-3 is necessary to operate Lotus 1-2-3, just as the code of any program is necessary to operate that particular program, making the code—under the First Circuit's reasoning—an unprotectible method of operation.

The First Circuit's misinterpretation of the Copyright Act is further illustrated by its statement that the district court erred by limiting "Lotus 1-2-3's 'method of operation' to an abstraction." 49 F.3d at 816. That statement alludes to Judge Learned Hand's observation that

[u]pon any work . . . a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out. . . . [T]here is a point in this series of abstractions where they are no longer protected, since otherwise the [author] could prevent the use of his "ideas," to which, apart from their expression, his property is never extended.

Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir. 1930), *cert. denied*, 282 U.S. 902 (1931). This analytic tool, which has been applied to computer programs in a number of cases, see, e.g., *Gates Rubber Co. v. Bando Chem. Indus.*, 9 F.3d 823, 834 (10th Cir. 1993); *Computer Assocs. Int'l, Inc. v. Altai, Inc.*, 982 F.2d 693, 706 (2d Cir. 1992), assists a court in identifying where protectible expression ends and unprotectible idea begins. In other words, the ideas barred from protection under Section 102(b) are a level of abstraction within a work.

¹¹ In itself, this indicates that the Lotus menu command hierarchy is expressive. See *Atari Games*, 888 F.2d at 885 ("the variety of ways to perform the same function sustains the classification of such works as 'expression'").

B. Denying Protection to Expression in Computer Programs Undermines the Incentives Congress Enacted for Their Authors.

The Constitution grants Congress the power "To Promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries," U.S. Const., art. I, § 8, cl. 8. It thus establishes both the "object and policy" of copyright law (to promote the progress of science—i.e., knowledge) and instructs Congress as to the appropriate mechanism for achieving that goal (granting authors exclusive rights for a limited period of time as an incentive to create new works).

The Court has confirmed that the public good is served by providing authors with these exclusive rights as an incentive to create works of authorship:

The economic philosophy behind the clause empowering Congress to grant patents and copyrights is the conviction that encouragement of individual effort by personal gain is the best way to advance public welfare through the talents of authors and inventors in "Science and useful Arts." Sacrificial days devoted to such creative activities deserve rewards commensurate with the services rendered.

Mazer, 347 U.S. at 219.

When Congress acted to protect computer programs as literary works under copyright, it implemented the constitutional dictate that the public good be served by granting exclusive rights as an incentive to authors. Experience has demonstrated the soundness of this approach for computer programs. The computer software industry relies on these incentives, and they have caused the industry to flourish and grow. Any fundamental alteration in the balance of these incentives, as in the decision below, is outside the competence of the judiciary and will have a substantial and detrimental effect on the industry.

Software development (including user interface design)¹² requires a substantial investment in creative expression—the very creativity that the economic incentives in the Copyright Act are designed to protect and nurture. Eliminating copyright protection for programs, or expressive elements of programs, undermines those incentives to innovate.¹³ Even casting substantial doubt on the availability and extent of such protection stifles progress and creativity, and disserves the goals of the Copyright Act.

This is so despite the First Circuit's mistaken belief that its holding would foster progress in the software development industry. 49 F.3d at 817-18. The First Circuit was obliged to abide by the balance struck by Congress in establishing the scheme of incentives for authors. The Court's admonition to another court of appeals is appropriate in this instance as well:

We agree with the Court of Appeals that copyright is intended to increase and not impede the harvest of knowledge. But we believe the Second Circuit gave insufficient deference to the scheme established by the Copyright Act for fostering the original works that provide the seed and substance of this harvest. The rights conferred by copyright are designed to assure contributors to the store of knowledge a fair return for their labors.

¹² As the most visible element of a computer program, the user interface is also the most easily plagiarized. Excluding this important programming element from protection would inevitably lead to more unauthorized copying.

¹³ In *Apple Computer, Inc. v. Formula Int'l, Inc.*, 562 F. Supp. 775, 783 (C.D. Cal. 1983), *aff'd*, 725 F.2d 521 (9th Cir. 1984), the court observed: "For companies are going to invest the time and resources to develop new programs if their products can be freely duplicated by anyone. Such 'competitors,' who could undersell the originator simply because they don't have its development costs, would destroy the market which any innovator needs to recoup his investment."

Harper & Row, Publishers v. Nation Enters., 471 U.S. 539, 545-46 (1985) (citation omitted).

CONCLUSION

The judgment of the court below should be reversed.

Respectfully submitted,

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